

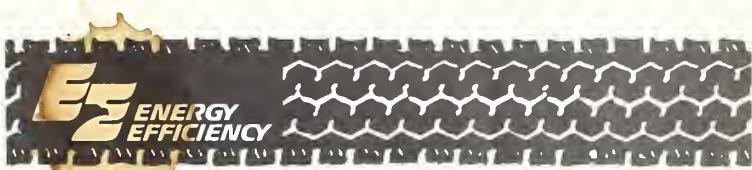
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HOW TO SAVE GASOLINE... AND MONEY



U.S. Department of Agriculture
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HOW TO SAVE GASOLINE . . . AND MONEY

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APP. 3 • 1981

CATALOGING = PREP.

If you're a typical driver, your car:

- travels more than 11,000 miles per year.
- consumes nearly 700 gallons of gasoline annually (just under 2 gallons a day)
- Has an average fuel-economy rating of 16 to 17 miles per gallon.
- costs more than \$850 per year for gasoline alone (about 8 cents a mile).

Those figures assume that you're driving a private automobile and living in an urban area. Yet, even if you have a long commute, use your car for business, operate a light truck, or for some other reason exceed those averages, the relative impact of gasoline costs on the pocketbook remains the same.

Why It Pays To Save Gasoline

By using your vehicle more efficiently, you could easily:

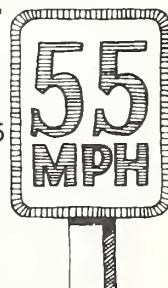
- cut gasoline consumption by 80 to 160 gallons per vehicle, probably without eliminating any necessary travel and without inconvenience or sacrifice, and
- save several hundred dollars per year. The money saved is like getting a discount on the gasoline you buy, of about 15 cents to 30 cents a gallon, a couple of dollars or more per tankful.

Passenger automobiles account for about 13% of all end-use energy consumption in the United States, and about 31% of all the petroleum used. If every driver of the more than 100 million private automobiles, plus some 20 million light trucks, reduced gasoline consumption just 5%, the total savings would be more than 5.5 billion gallons of gasoline per year. That's enough, in savings alone, to drive the average car between New York City and San Francisco about 25 million times.

How to Drive Efficiently

1. Drive at a moderate speed.

The most efficient range usually is 35 to 45 miles per hour. On the highway, where you may need to maintain a higher speed, stay at 55 mph. Most automobiles get about 14 percent better mileage on the highway at 50 than at 65 mph, and 20 percent better mileage at 55 than at 70 mph.



2. Drive at a smooth and steady pace.

Press lightly but steadily on the accelerator. Avoid tailgating, unnecessary accelerating, and braking.

3. Drive "defensively." Anticipate traffic flow 10 to 12 seconds ahead. Maintain 2 or 3 seconds of buffer space between your car and the others around you.

4. Don't idle the engine for longer than 30 seconds.

Idling gets 0 miles per gallon. Driving slowly for the first few minutes is a much more efficient way to warm the engine than excessive idling, even after the car has stood overnight. Also, turn off the ignition any time you expect to wait more than 30 seconds

or so; restarting will take less gasoline than idling.

5. Keep windows closed when driving at highway speeds.

Open windows increase wind resistance by creating drag. If the outdoor temperatures permit, use flow-through ventilation. If heating or cooling is needed, use a moderate setting.

How To Plan Your Trips

1. Share the ride.

About one-third of all private automobile mileage is for commuting. When two people ride together, say to work, they use about half the gasoline required if each drove alone. Consider organizing or joining a vanpool for a maximum savings.



2. Combine Trips. Plan your trips—to market, to the library, to school, or to visit friends. Often one neighborhood jaunt can serve two or three purposes. Help your neighbors by offering to run errands for them. Make your shopping or optional trips when traffic is lightest, and return home before the rush hour starts. Patronize your nearest group or stores.

3. Eliminate unnecessary trips.

Find one trip a day which might be better handled—or even eliminated—by telephoning, writing, or combining with another trip.



4. Take public transit.

On buses and trains one can read, daydream, sleep, or catch up on work. If public transit isn't available, charter buses or form vanpools.



How To Care for Your Car

1. Check tire pressures regularly. Keep tires inflated to the manufacturer's highest recommended level. Most such recommendations are for cold pressure, so buy a good

quality gauge and take readings before starting out. You can improve mileage 1% for every 2 pounds of tire pressure needed to bring them up to standard.

2. Buy radials. They will generally give 3 to 5% improvement in gas mileage in the city, and up to 10% on the highway. When you buy a new car, specify radials. They last longer, give better steering qualities. But don't mix radials with conventional tires—it can be dangerous.

3. Align wheels. Improper wheel alignment can increase fuel use and cause unnecessary tire wear. A regular alignment check is a good idea, particularly after the wheels have had a jolt—from striking potholes, bumps, or curbs.

4. Adjust brakes. Brakes that drag or grab unevenly rob you of gasoline, and can be dangerous. Be sure that the brakes grip and release properly.

5. Use gasoline of the proper octane rating. The owner's manual gives the gasoline octane rating and gasoline type recommended by the auto manufacturer. What you want is octane just high enough to prevent knocking.

6. Check and change oil and oil filter at recommended intervals. Every time you add gasoline, check the oil. Dirty oil or a low oil level can cause friction and wear that rob you of gasoline mileage and can seriously damage your engine.

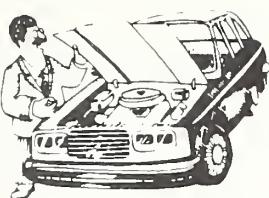
7. Use a good quality SE multi-grade (multiviscosity) oil. Look for the API SAE rating on the container. Multi-grade oils like 10W-30 and 10W-40 help reduce internal engine friction and give better gasoline mileage than single-grade oils. Do not use an oil of higher viscosity than recommended in your owner's manual since heavier oils tend to increase friction and decrease mileage efficiency. A lower viscosity oil such as 5W-30 is recommended for winter months in a cold climate. Consider using the super oils; they increase fuel economy and give better protection against wear of engine parts. Always use oils that are marked SE.

8. Little things count. Don't overfill the gas tank. Don't carry unnecessary weight. For every additional 100 pounds, mileage goes down as much as 4/10 of a mile per gallon.

For safety's sake, never carry a can of gasoline in the trunk.

9. Tune your engine.

If your engine is hard to start, hesitates, sputters, idles roughly, or the like, you are losing mileage and you or your mechanic should check its condition immediately. You may only need to clean and adjust spark plugs and ignition points, replacing if necessary; check timing; and replace air and fuel filter elements. Depending on the condition of your engine and how much you drive in the course of a year, you could save up to 12% on your gasoline bills.



How To Choose Your Next Car

1. The greatest single step you can take to save gasoline is to choose your next car carefully.

Here's how:

- If you are in the market for a new car, consult the *Gas Mileage Guide for New Car Buyers*, available free from any dealer or by mail; write Fuel Economy, USDOE, PO Box 62, Oakridge, TN. 37830. The *Guide* contains the most complete and accurate information available on the relative fuel-economy performance of all current model cars, station wagons, and light trucks. The estimates are in terms of miles per gallon measured on the Environmental Protection Agency's standardized fuel-economy test. The actual mileage you get will depend to a large degree on how and where you drive—and on following the tips on saving gasoline and money found in these pages. You can save hundreds of dollars per year simply by choosing an economical car.
- If you expect to buy a used car, first consult the auto magazines or buyer's guides published by the consumer testing organizations. These should be available at the public library. In buying a car choose the

size needed to satisfy your normal driving patterns. Consider such things as the car's weight, and select the lightest car in the class. Also, choose the one with the lowest practical number of cylinders. Choose manual transmission if most of your driving is typically on the highway. And avoid power option extras. If you need extra passenger or trunk room occasionally, consider buying a compact and renting a station wagon once or twice a year.

2. Little things can make a difference.

Select a light-colored car for a warm climate—to reflect the sun's rays. Tinted glass or a light-colored interior also helps cut down on heat inside the car. If you don't need an installed luggage rack on top, specify a model without one; it adds to wind resistance. Above all, don't be pressured into buying "the latest model" left on the floor or lot. You'll be driving—and paying for gasoline—for a "lifetime," the lifetime of your ownership of the car.

Why Not Also. . .

1. Support local energy-saving laws.

Those that help reduce automobile gasoline consumption might include; increasing availability of public transportation; express lanes for ridesharing vehicles and buses during peak commuting hours; synchronized traffic lights; right turns on red; banning stopping, standing, or parking on arterial streets during rush hours; and providing over-passes at busy intersections.

2. **Vacation close to home.** Discover nearby attractions. A nearby hotel, resort, or campground might provide as satisfying a change from routine as a similar one up to thousands of miles away.

Walk, hike, jog, and bicycle. These modes of transportation—which also afford pleasure, relaxation, and exercise, consume no gasoline.

Add Up Your Savings, Step by Step, Gallon after Gallon, Tankful after Tankful, Year after Year

If you take all
of the steps in
this column:

It's the same as saving
about this much on each
gallon of gasoline:*

if gas
costs \$1.20

How To Drive More Efficiently

Warm engine correctly
Drive at a moderate speed
Accelerate briskly and steadily
Anticipate what's ahead—leave buffer
around your car
Flow smoothly through
traffic altogether, 6¢

How to Plan Your Trips

Rideshare to work with a friend 6¢
Plan family errands
— combine trips
— use the telephone and mail
— ride with others..... altogether, 3¢
Plan social and recreational trips
— combine trips
— rideshare..... altogether 3¢

How To Care for Your Car

Inflate tires to highest
recommended pressure 2¢
Select high-mileage oil 2¢
Get tune-up and adjustments
when needed 2¢

How To Choose Your Next Car and Tires

Buy radial tires 2¢
Replace your present car with
another that gets 10 mpg more
than your present one 24¢
You can save: 50¢

These savings are based on the assumption that
you will take all of these steps. They are slightly
smaller than those shown in the text since individ-
ually there is a small amount of overlapping sav-
ings.



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